

**What Is Claimed Is:**

1. A coated implant delivery system comprising:  
an implant delivery device with a first end, a second end, and an inner lumen,  
the first end having a releasable implant retention region,  
the releasable implant retention region having an accessible surface,  
the accessible surface of the releasable implant retention region having a coated  
implant adhesion-resistant treatment.
2. The coated implant delivery system of claim 1 further comprising:  
a releasable implant having a first coating,  
the releasable implant releasably positioned in physical communication with the  
releasable implant retention region,  
the first coating facing the releasable implant retention region.
3. The coated implant delivery system of claim 2 wherein the implant delivery device is a  
balloon catheter.
4. The coated implant delivery system of claim 1 further comprising:  
two sleeves positioned in physical communication with the releasable implant retention  
region,  
the exterior of the second end of the implant delivery device treated with a second  
coating.
5. The coated implant delivery system of claim 1 further comprising:  
a conduit in fluid communication with the releasable implant retention region,  
wherein the accessible surface of the device includes a third coating.

1 6. The coated implant delivery system of claim 1 wherein the coated implant adhesion-  
2 resistant treatment includes a non-adhesive silicon coating.

1 7. The coated implant delivery system of claim 1 wherein the coated implant adhesion-  
2 resistant treatment includes a non-adhesive hydrophilic coating.

1 8. The coated implant delivery system of claim 1 wherein the coated implant adhesion-  
2 resistant treatment includes a non-adhesive hydrogel coating.

1 9. The coated implant delivery system of claim 1 wherein the coated implant-adhesion  
2 resistant treatment includes a non-adhesive carbowax coating.

1 10. The coated implant delivery system of claim 1 wherein the coated implant-adhesion  
2 resistant treatment includes a non-adhesive PEO coating.

1 11. The coated implant delivery system of claim 1 wherein the releasable implant is a  
2 balloon-expanding stent.

1 12. The coated implant delivery system of claim 1 wherein the releasable implant is a self-  
2 expanding stent.

1 13. The coated implant delivery system of claim 1 wherein the releasable implant is a graft.

1 14. The coated implant delivery system of claim 1 wherein the releasable implant is an  
2 aneurysm coil.

1 15. A method of deploying a coated releasable implant at a target site of a vessel using an  
2 implant delivery system comprising:  
3 inserting a portion of an implant delivery device having a releasable implant into the  
4 vessel;  
5 advancing the implant delivery device to the target site;  
6 deploying the releasable implant from the delivery device; and  
7 withdrawing the inserted portion of the implant delivery device from the vessel,  
8 the implant delivery device having a releasable implant retention region,  
9 the releasable implant retention region having an accessible surface,  
10 the accessible surface having a coated implant adhesion-resistant treatment,  
11 the releasable implant having a first coating,  
12 the first coating facing the accessible surface of the releasable implant retention  
13 region.

1 16. The method of claim 15 further comprising:  
2 injecting an adhesion resistant coating between the implant delivery device and the  
3 releasable implant.

1 17. The method of claim 15 further comprising:  
2 releasing a tracer at the target site; and  
3 monitoring the deployment of the releasable implant with the tracer.

1 18. A method of manufacturing a coated implant delivery system comprising:  
2 constructing an implant delivery device, the implant delivery device having a first end  
3 and a second end,  
4 the first end having a releasable implant retention region, the releasable implant  
5 retention region having an accessible surface;  
6 positioning a releasable implant in physical communication with the releasable implant  
7 retention region, the releasable implant having a first coating, the first coating facing the  
8 releasable implant retention region; and  
9 conditioning the accessible surface of the releasable implant retention region facing the  
10 first coating to resist adhesion between the first coating and the accessible surface of the  
11 releasable implant retention region.

1 19. The method of claim 18 wherein conditioning the accessible surface of the releasable  
2 implant retention region facing the first coating comprises:  
3 applying a coated implant adhesion-resistant coating to the accessible surface of the  
4 releasable implant retention region facing the first coating of the releasable implant.

1 20. The method of claim 19 wherein the adhesion-resistant coating contains a therapeutic.

1 21. The method of claim 18 wherein conditioning the accessible surface of the releasable  
2 implant retention region facing the first coating comprises:  
3 altering the properties of the accessible surface of the releasable implant retention region  
4 facing the first coating.

1 22. The method of claim 21 wherein the physical properties of the accessible surface of the  
2 releasable implant retention region facing the first coating are altered.

- 1        23.        The method of claim 21 wherein the chemical properties of the accessible surface of the  
2        releasable implant retention region facing the first coating are altered.

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